



Manchester-Boston Regional Airport
One Airport Road, Suite-300
Manchester, New Hampshire 03103

Addendum No. 1

Date: June 12, 2024

**RFP No: RFP FY24-805-67
UPS SYSTEM REPLACEMENT**

This Addendum #1 to the Request for Proposals for UPS SYSTEM REPLACEMENT contains the following clarifications and changes to the RFP:

- Changes to the RFP Document
- Changes to APPENDIX B.
- Responses to questions submitted in writing.

CHANGES TO THE RFP DOCUMENT.

Paragraph 6.8 is deleted and replace with the following:

6.8 Contract Agreement: The City intends to enter into an Agreement with one Respondent for a five (5) year fixed term for Maintenance and Support.

CHANGES TO APPENDIX B.

Appendix B shall be deleted and replaced with APPENDIX B below.

QUESTION SUBMITTED IN WRITING

Question 1: Section B.1.A.4 & 5. Can you please confirm the number of years required for an on-site 4-hour parts & labor contract?

Response: Appendix B has been revised to reflect warranty, unscheduled maintenance response time and preventative maintenance service and terms.

Question 2: UPSs of this size are Online Topology architecture which offers higher levels of protection than the Line-Interactive architecture that is called out.

Response: Appendix B has been revised to reflect Online Double Conversion Topology.

Question 3: A redundant battery requirement requires an additional string of batteries which means an additional cabinet & the associated footprint. Is this a mandatory requirement?

Response: Appendix B has been revised. Line 11.7.2 Redundant Batteries has been deleted in its entirety.

Question 4: These temperature ranges are outside of the range that a UPS and batteries are allowed to operate. Only UPS storage is allowed at those temperatures. Batteries must be stored around 77F for warranty and operation.

Response: Appendix B has been revised. The ambient operating temperature of the Datacenter and room 1050 is 66-79F.

Question 5: Can the list of temporary UPS sizes and quantities be provided?

Response: The table below outlines the current plan for required temporary UPS devices needed to support clean power operation during the conversion. The Airport plans to provide “street power” with generator backup to these devices.

| <u>Watts</u> | <u>Count</u> |
|--------------|--------------|
| 3000 | 4 |
| 1500 | 5 |
| 600 | 1 |

Question 6: Section B.1.C.12.2 – Section calls out 4 hours of runtime. The on-site discussion on 6/10 mentioned 15 minutes of runtime to be satisfactory. Can that be confirmed?

Response: Appendix B has been revised. The device should aim to achieve the maximum possible battery runtime. A preference will be given to designs that provide a battery runtime as close as possible to a minimum of 50 minutes.

Question 7: Section B.1.C.12.3 – The input voltage of the Symmetra LX is 208/120V and includes a neutral. 240V is call out. Can the acceptance of 208/120V be confirmed?

Response: The in-place transformer requires that the UPS support a 100 amp 120/240 single phase input circuit.

Question 8: Section B.1.C.12.7 – The Symmetra LX is an Online Topology UPS vs the callout of the Line-Interactive architecture. Can you confirm that an Online topology will be accepted?

Response: Appendix B has been revised to reflect Online Double Conversion Topology.

Question 9: Section B.1.C.12.9 – Same temperature range concerns as in section B.11.9. Operation at around 77F is recommended for optimal performance and battery health.

Response: Appendix B has been revised. The ambient operating temperature of the Datacenter and room 1050 is 66-79F

Question 10: Do the installation services require Union labor?

Response: No

Question 11: Will the airport have an assigned Project Manager to coordinate security and access?

Response: Yes

Question 12: Will the airport provide an Electrical One -Line diagrams?

Response: No. These diagrams are not available.

Question 13: Does the airport have a preferred electrician? If yes, please provide that information[Abstract].

Response: The Airport does not have a preferred electrician; however, there are several electricians with airport experience: Piquette and Howard Electric, Gerard A. LaFlamme and Interstate Electrical Services. Respondents are free to choose any electrician licensed to work in the state of New Hampshire.

Question 14: Please provide the KVA load number that the required 1-hour runtime is to be factored on?

Response: Based on current and projected load we expect 30 KVA load. The device should aim to achieve the maximum possible battery runtime. A preference will be given to designs that provide a battery runtime as close as possible to a minimum of 50 minutes.

Question 15: Can the Transformer component of the existing Symmetra PX be relocated to provide cabinet space for the UPS system?

Response: Yes. Respondent shall include the associated costs in their proposed solution.

Question 16: Will the Airport consider a lithium ion based battery system?

Response: Yes. While the RFP specifies a VRLA (Valve-Regulated Lead-Acid) battery, the Airport will consider the inclusion of a lithium-ion-based battery system. Respondents are encouraged to propose a lithium-ion battery system as an alternative option in their proposals.

APPENDIX B: UPS SYSTEM REQUIREMENTS

B.1: Detailed Requirements.

The project aims to replace the existing Uninterruptible Power Supply (UPS) systems located in the data center and network operations IDF. This involves replacing a 50 KW UPS and a 16 KW UPS system. The scope includes removal and disposal of old systems, installation of new UPS systems with minimal downtime, providing temporary UPS systems during cutover, a five-year preventive maintenance and support contract, comprehensive training for operational staff.

(a) Requirements for all systems:

1. Proven Platform: The proposed UPS systems must not be in their first model year. They must have been commercially available and operational for at least three (3) years.
2. Mean Time Between Failures The proposed system shall have a Mean Time Between Failures (MTBF) of at least 120,000 hours.
3. Support Service Level Agreements for unscheduled maintenance shall require on-site response within four (4) hours and be available 24 x 7 x 365.
4. Preventive Maintenance: Five (5) years of scheduled preventative maintenance service shall include UPS and battery health checks.
5. Manufactures Warranty: Minimum one (1) year warranty with on-site support.
6. Installation, Testing and commissioning services of the new UPS systems shall be completed with minimal downtime to Airport. Power outages shall be scheduled for 'off-hour' and coordinated with the Airport.
7. All electrical work must be completed by an electrician licensed to work in the state of New Hampshire.
8. Access and Maintenance: Systems shall ensure easy front and rear access to all components for maintenance and monitoring. The design must allow for servicing without disassembling adjacent equipment.
9. Monitoring and Management: The UPS shall have the following features:
 - 9.1. Remote monitoring capability; and
 - 9.2. SNMP support for system alerts and alarms ; and
 - 9.3. web-based management interface; and
 - 9.4. product agnostic, central collection of power usage data for a 90 day period and a report of battery maintenance history.
10. Cybersecurity of Critical Operational Technology: The proposed UPS systems must incorporate robust cybersecurity measures to protect critical operational technology. This includes encryption of data, secure access controls, regular security updates, and compliance with industry standards and best practices for cybersecurity.

(b) Replacement of existing Datacenter 50 KW UPS

11. Requirements for Existing 50 KW UPS (current load 14KW)
 - 11.1. Power Capacity: 40 KW modular UPS with chassis capacity expandable to 100KW
 - 11.2. Runtime: The device shall aim to achieve the maximum possible battery runtime. A preference will be given to designs that provide a battery runtime as close as possible to a minimum of 50 minutes.

- 11.3. Input Voltage: 480 3 phase.
- 11.4. Output Voltage: 120/208 3 phase.
- 11.5. Output Connection: Hard Wire 4-wire (3PH+N+G) 1
- 11.6. Architecture: Online Double Conversion.
- 11.7. Redundancy: N+1 (or greater) redundancy for critical components
 - 11.7.1. Redundant Power Modules: Extra power modules are included beyond what is necessary to handle the load, so if one fails, the others can take over without interruption.
 - 11.7.2. Redundant Control Units: Multiple control units ensure the system can operate if one control unit fails.
- 11.8. Environmental Ambient Conditions temperature range of 66-79 °F
- 11.9. Certifications: Must comply with UL, and FCC Part 15
- 11.10. Dimensions and Fit: The proposed UPS systems must fit within the existing footprint of three (3) 48U cabinets, each with a height of 84 inches (2134 mm), a width of 24 inches (600 mm), and a depth of 48 inches (1200 mm). The combined width of the three cabinets is 72 inches (1800 mm). Configuration: All components of the UPS system, including power modules and battery packs, must be designed to fit within these dimensions. Proper airflow and cooling must be maintained within the cabinets.

(c) Replacement of existing 16 KW IDF UPS (current load 6KW)

12. Requirements for Existing 16 KW UPS
 - 12.1. Power Capacity: 16 KW (Current load 7KW)
 - 12.2. Runtime: The device shall aim to achieve the maximum possible battery runtime. A will be given to designs that provide a battery runtime as close as possible to a minimum of 50 minutes.
 - 12.3. Input Voltage: 240V 1 phase
 - 12.4. Output Voltage: 120/208V 1 phase
 - 12.5. Output Connection: Hard Wired
 - 12.6. Architecture: Online Double Conversion.
 - 12.7. Redundancy: N+1 (or greater) redundancy for critical components
 - 12.8. Environmental Ambient Conditions temperature range of 66-79 °F
 - 12.9. Certifications: Must comply with UL, and FCC Part 15
 - 12.10. Dimensions and Fit: 19" W x 27" D All components of the UPS system, including power modules and battery packs, must be designed to fit within these dimensions. Proper airflow and cooling must be maintained within the cabinets.